

# ANTENNAS

*Navigator*



# ANTENNAS NAVIGATOR

## STYLE

	FLEXIBLE BLADE	STUBBY OR PATCH FOR GNSS	WHIP	THICK MONOPOLE AND DIPOLE	OPTICAL HORN
<b>Frequency</b>	<ul style="list-style-type: none"> <li>VHF 30-512 MHz</li> </ul>	<ul style="list-style-type: none"> <li>Band (GPS L1 1575.42 MHz)</li> <li>Dual-band (GPS L1/L2 1227/1575 MHz)</li> <li>Iridium</li> <li>Gallileo</li> <li>Glonass</li> <li>Beidu</li> </ul>	<ul style="list-style-type: none"> <li>VHF 30-512 MHz</li> </ul>	<ul style="list-style-type: none"> <li>Range up to 6 GHz</li> <li>Multi-band</li> </ul>	<ul style="list-style-type: none"> <li>V Band: 57 to 66 GHz</li> <li>2 antenna versions that reach a gain of 32 dBi and 38 dBi</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>Water resistant up to 20 m</li> <li>Blade assembly</li> <li>Bidirectional blade assembly</li> <li>Stainless steel tape material covered with MIL-STD shrink tubing</li> </ul>	<ul style="list-style-type: none"> <li>Low profile stubby</li> <li>Quadrifilar element (stubby)</li> <li>Ceramic patch</li> </ul>	<ul style="list-style-type: none"> <li>Molded or over-molded TPU material</li> <li>UV, oil, fuel and fungus resistant</li> <li>Abrasion resistant</li> <li>High impact strength</li> <li>Stainless steel cable</li> <li>Flexible, 20 m immersible rugged whip</li> </ul>	<ul style="list-style-type: none"> <li>UV resistant PC material</li> <li>Thick monopole/dipole radiating element</li> <li>Dipole array radiating element</li> <li>Printed, filar technology</li> <li>Flexible</li> <li>Stainless steel spring mount base</li> <li>Spring breakaway joint</li> </ul>	<ul style="list-style-type: none"> <li>Horn in zamac</li> <li>PCB length that focalizes the radiation in order to reach very high gain performance</li> </ul>
<b>Applications</b>	<ul style="list-style-type: none"> <li>Tactical radio</li> <li>Communication</li> <li>Jamming</li> </ul>	<ul style="list-style-type: none"> <li>Positioning</li> </ul>	<ul style="list-style-type: none"> <li>Tactical radio</li> <li>Communication</li> <li>Jamming</li> </ul>	<ul style="list-style-type: none"> <li>Communication</li> <li>Jamming</li> <li>Satcom Ground Vehicle (SUGV)</li> </ul>	<ul style="list-style-type: none"> <li>Telecom backhaul for small cells</li> <li>Telecom fronthaul</li> </ul>
<b>Additional Options</b>	<ul style="list-style-type: none"> <li>With or without gooseneck</li> <li>Choice of connectors</li> <li>Molded or over-molded</li> <li>Size vs. power, and/or connector, matching network</li> </ul>	<ul style="list-style-type: none"> <li>Passive or active</li> <li>Custom LNA gain</li> <li>With or without SAW filter (out of band rejection)</li> <li>With cable assemblies</li> <li>With RF gooseneck</li> <li>Custom markings</li> </ul>	<ul style="list-style-type: none"> <li>Choice of connectors</li> <li>Molded or over-molded</li> <li>Custom markings</li> <li>Mating interface with radio</li> <li>Size vs. power, and/or connector, matching network</li> </ul>	<ul style="list-style-type: none"> <li>Choice of connectors</li> <li>Finish (Matte Black, Nato Green, Desert Tan)</li> <li>Custom markings</li> <li>Size vs. power and/or connector</li> <li>Frequency bands</li> <li>Min. or no ground plane</li> </ul>	<ul style="list-style-type: none"> <li>WR15 waveguide connector</li> <li>ETSI Class 2 for side lobe level</li> <li>Linear polarization</li> <li>IP67 ingress protection</li> </ul>

## APPLICATIONS

### Military Handheld

- Typical power < 10 W
- Blade assembly with and without gooseneck
- Over-molded and molded whip
- 2 m and 20 m immersion

### Military Manpack

- Typical power 20 W
- Blade assembly with or without gooseneck
- 2 m and 20 m immersion

### Military Vehicular

- Manned and unmanned vehicle
- Typical power 50 W
- Breakaway joint

### Industrial

- ISM, 3G, LTE and WiFi bands
- IP67 required for outdoor applications

### Positioning


- GNSS satellite positioning as GPS/Glonass/Gallileo/Beidu for handheld devices

### Telecom

- Telecom backhaul for small cells
- Telecom fronthaul

## PRODUCT ORDERING

SERIES	APPLICATIONS							ELECTRICAL CHARACTERISTICS		PHYSICAL CHARACTERISTICS		
	Connector	Military Handheld	Military Manpack	Military Vehicular	Industrial	Positioning	Telecom	Frequency (MHz / GHz)	Power (w)	Construction	Length (in/mm)	Part Number
Flexible Blade	TNC		■					V/UHF 30-512 MHz	11-20 W	With Gooseneck	Large < 30 cm	R380000153
	N	■						ISM 2.4-2.5 GHz	1-10 W		Large < 30 cm	R380500234
	TNC		■					V/UHF 30-512 MHz	11-20 W	With Gooseneck	Large < 30 cm	R380000165
	TNC	■						V/UHF 30-512 MHz	11-20 W	-	Large < 30 cm	MD11-052
	TNC		■					V/UHF 30-512 MHz	11-20 W	-	Large < 30 cm	MD13-017
Optical Horn	WR15							V-BAND 60 GHz	1-10 W	32 dBi Array Antenna	Medium 10 cm-30 cm	R380840000
Stubby or Patch for GNSS	SMA				■	■		GPS L1	1-10 W	GNSS Passive Small Antenna	Short < 10 cm	R380300032
	SMA	■						GPS L1	0-1 W	L1 GPS Active 11.5 dB Antenna	Short < 10 cm	R380300013
	SMA	■						GPS L1	0-1 W	L1 GPS Active 20 dB Antenna	Short < 10 cm	R380300024
	SMA	■						GPS L1/GLONASS/GALLILEO	0-1 W	GNSS Passive Medium Antenna	Short < 10 cm	R380300035
	SMA	■						GPS L1/GLONASS/GALLILEO	0-1 W	GNSS Active Medium Antenna	Short < 10 cm	R380300036
	SMA	■						GPS L1/GLONASS/GALLILEO	0-1 W	GNSS Passive Small Antenna	Short < 10 cm	R380300037
	SMA	■						GPS L1/GLONASS/GALLILEO	0-1 W	GNSS Active Small Antenna	Short < 10 cm	R380300038
	Thick Monopole & Dipole	N				■			ISM 2.4-2.5 GHz	11-20 W	6 dBi Omnidirectional	Large > 30 cm
N					■			ISM 5.1-5.9 GHz	11-20 W	6 dBi Omnidirectional	Medium 10 cm-30 cm	MD11-035
N					■			ISM 4.8-5 GHz	11-20 W	6 dBi Omnidirectional	Medium 10 cm-30 cm	MD11-037
N					■			ISM 900 MHz	1-10 W	0 dBi Omnidirectional	Medium 10 cm-30 cm	MD14-007
SMA					■			UHF 470-654 MHz	1-10 W	-	Medium 10 cm-30 cm	R380100108
SMA		■						ISM 2.4-2.5 GHz	1-10 W	2 dBi Omnidirectional	Short < 10 cm	R380500125
SMA		■						ISM 2.4-2.5 GHz	1-10 W	2 dBi Omnidirectional	Short < 10 cm	R380500127
SMA		■						ISM 2.4-2.5 GHz	1-10 W	2 dBi Omnidirectional	Short < 10 cm	R380500132
SMA		■						ISM 2.4-2.5 GHz	1-10 W	3 dBi Omnidirectional	Short < 10 cm	R380500140
N			■					ISM 2.4-2.5 GHz	1-10 W	Spring Loaded	Large > 30 cm	R380500232
N			■					ISM 2.4-2.5/4.9-5.9 GHz	1-10 W	Spring Loaded	Medium 10 cm-30 cm	R380900200
N				■				V/UHF 30-512 MHz	21-50 W	Spring Loaded	Large > 30 cm	R380990010
N				■				V/UHF 30-512 MHz	21-50 W	Spring Loaded	Large > 30 cm	R380000800
N					■			GSM/UMTS/LTE 700 MHz-2.7 GHz	1-10 W	2 dBi Omnidirectional	Medium 10 cm-30 cm	R380900341
SMA					■			ISM 2.4-2.5 GHz	1-10 W	-	Short < 10 cm	R380500151
N				■			ISM 2.4-2.5/4.9-5.9 GHz	1-10 W	2 dBi Omnidirectional	Medium 10 cm-30 cm	R380900343	
N				■			MIL 2.4-6 GHz	> 50 W	Spring Loaded	Large > 30 cm	R380990020	
N				■			V/UHF 30-512 MHz	> 50 W	Spring Loaded	Large > 30 cm	R380990021	
Whip	TNC	■						V/UHF 30-512 MHz	1-10 W	Overmolded	Medium 10 cm-30 cm	R380000178
	TNC		■					V/UHF 30-512 MHz	11-20 W	Overmolded	Large > 30 cm	R380000169
	TNC	■						V/UHF 30-512 MHz	1-10 W	Overmolded	Large > 30 cm	MD10-003

An aerial night view of a city, likely Tokyo, with a network of white location pins connected by thin white lines. The pins are placed at various points across the city, and the lines form a web-like structure. The city lights are visible in the background, and the sky is a deep blue.

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## SIMPLIFICATION is our INNOVATION

*We advance the design and engineering process for innovators, groundbreakers and pioneers of technology. We reduce weight, improve durability and streamline installation to provide leading-edge connectors that drive product performance.*

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